

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  MIDAMERICAN ENERGY COMPANY	DOCKET NOS. AEP-03-1 TF-03-537
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**ORDER APPROVING, WITH CONDITIONS, VOLUNTARY  
PURCHASE PROGRAM, APPROVING TARIFFS,  
AND REQUIRING ADDITIONAL INFORMATION**

(Issued December 24, 2003)

On August 22, 2003, MidAmerican Energy Company filed with the Utilities Board (Board) its proposed alternate energy purchase (AEP) program, identified as Docket No. AEP-03-1, pursuant to Iowa Code § 476.47 and 199 IAC 15.17. MidAmerican filed proposed tariffs, identified as TF-03-537, to implement the proposed program on December 2, 2003. The Consumer Advocate Division of the Department of Justice (Consumer Advocate) filed an objection to the purchase program on September 11, 2003. The Iowa Sustainable Energy for Economic Development Coalition (SEED) submitted comments on December 8, 2003. SEED did not request to formally intervene in the proceeding and no hearing was requested.

MidAmerican's proposed program, which it calls Renewable Advantage, is conceptually different from a contract and purchase type program, such as the Second Nature program approved for Interstate Power and Light Company (IPL) in Docket No. AEP-03-1. To understand MidAmerican's program, it is useful to contrast

it with the Second Nature program. Under the Second Nature program, participant contributions pay for the direct purchase of renewable energy from third parties under IPL purchase contracts. The purchase price is the difference between the contract price and IPL's avoided cost.

With MidAmerican's Renewable Advantage concept, participants instead would contribute \$331,000, or approximately 20 percent of the investment cost, for a 1.5 MW wind generator that would cost \$1.6 million. MidAmerican would pay the remaining 80 percent share and own the generator as part of its generating portfolio. The participant contribution is based on the results of a cash flow analysis model that determines the investment level at which MidAmerican is financially indifferent to building the wind generator. MidAmerican anticipates that accumulated contributions will be sufficient to complete the wind generator by December 31, 2005, or 24 months after the start of the Renewable Advantage program.

If contributions are less than expected, or if a change occurs in one of MidAmerican's critical assumptions, such as availability of the federal Production Tax Credit, MidAmerican might construct a smaller facility, or contract for energy purchases from a third party similar to IPL. If contributions are more than expected, MidAmerican will consider building additional facilities, based on its cash flow analysis model and the level of contributions. Consumer Advocate objects to details of the program, but not the program concept itself.

MidAmerican's program will be open to all customer classes. Contributions will be in the form of monthly fixed dollar amounts. The program will also allow for one-time or periodic contributions.

MidAmerican's cash flow analysis model determines the break-even point, in terms of MidAmerican's percentage share of the wind generator's investment cost, at which MidAmerican becomes financially indifferent to building the wind generator. The analysis adjusts MidAmerican's share of the investment cost until the 10-year net present value cash flow, which is derived from the generator's estimated net wholesale revenue and tax benefits, offsets the investment cost while producing a target 12.2 percent internal rate of return on equity. The remainder of the investment cost then becomes the program participants' share.

MidAmerican proposes to include its portion of the wind generator as part of its regulated generation portfolio and treat revenues from the wind generator the same as other wholesale revenues. Under the terms of the ratemaking principles settlement in Docket No. RPU-03-1, this means that MidAmerican's investment share would become part of regulated rate base, and the revenues and expenses associated with the wind generator would become part of MidAmerican's overall revenue sharing calculation. When the settlement expires after 2010, MidAmerican proposes to reflect both the wind generator's costs, and its offsetting wholesale revenue and tax benefits, in base rates. MidAmerican believes this treatment will adequately protect both non-participating customers and MidAmerican shareholders

from adverse financial impacts. Wholesale revenues from the wind generator would not be passed on to customers through any future energy adjustment clause (EAC).

Consumer Advocate objects to various assumptions used in the model, including the 10-year depreciation, 12.2 percent internal rate of return, ratemaking treatment of revenues from the facility after 2010, and the lack of ratemaking assurances for non-participating customers. Consumer Advocate argues that the depreciation period should be 20 years, that a 12.2 percent return is excessive, that MidAmerican cannot assume it will be allowed to retain wholesale generating revenues after 2010, and that MidAmerican should provide assurances that non-participating customers will never have to pay costs associated with the wind generator.

SEED objects to MidAmerican receiving any return on its portion of the project and also supports a 20-year depreciation period. Because SEED believes large-scale wind projects have lower costs than convention fossil fuel generation, SEED believes there is no need for additional contributions from program participants and the money should be used to support other renewable projects. In addition, SEED objects to MidAmerican collecting the money and holding it for an indefinite period prior to beginning the project. With respect to this last point, it should be noted that MidAmerican's plan does specify a maximum time lag of 24 months between the beginning of customer contributions and the in-service date and also specifies procedures for suspending customer contributions if this time period is exceeded.

MidAmerican also notes it could construct a smaller project or MidAmerican may advance additional funds, and all customer contributions will accrue interest.

At first glance, MidAmerican's concept of using customer contributions as leverage for purchase of a wind generator appears, as suggested by SEED's comments, to blur the distinction between incremental renewable resources funded by customer contributions versus those funded by MidAmerican. The Board believes this issue can be resolved by drawing a clear distinction between the project portion funded by program participants and the portion funded by MidAmerican.

In analyzing this issue, it is again useful to compare MidAmerican's proposed Renewable Advantage program with IPL's uncontested Second Nature program. IPL's Second Nature program is based on purchase contracts with third parties, one of which is IPL's contract with the large-scale Hancock County wind farm. IPL assigns 10 percent of its Hancock County wind contract to the Second Nature program. Thus, a clear distinction is drawn between what is incrementally funded by program participants (i.e., 10 percent of the contract) versus what is funded by customers as a whole through IPL's alternate energy purchase clause (i.e., the remaining 90 percent).

In a similar way, MidAmerican's Renewable Advantage program draws a clear distinction between the \$331,000 portion of wind generator investment costs funded by program participants, and the remaining portion funded by MidAmerican. MidAmerican's cash flow analysis determines its investment break-even point (i.e.,

the point at which MidAmerican becomes financially indifferent to investing in the generator) by equating MidAmerican's investment portion with the net present value of the wind generator's estimated net wholesale revenues and tax benefits (with no contribution from customer rates), assuming a 10-year payback and 12.2 percent internal rate of return. The remainder of the investment cost (\$331,000) becomes the program participants' portion.

Consumer Advocate argues that MidAmerican should guarantee there will be no rate impacts for non-participant customers. MidAmerican's opposition to such a guarantee seems to be linked to Consumer Advocate's position on the ratemaking treatment of wholesale revenues from the generator after 2010. However, if MidAmerican provides this guarantee, other potential ratemaking issues raised, such as the 10-year depreciation, 12.2 percent return on equity, and ratemaking treatment of wholesale revenues after 2010, become moot. These other ratemaking issues are difficult, if not impossible, to resolve outside the context of a full rate case or ratemaking principles proceeding. But there will be no ratemaking issues if MidAmerican guarantees that the generator will have no effect on non-participating customer rates.

MidAmerican emphasizes the need for symmetrical ratemaking treatment of facility costs and benefits. In its responsive comments filed on September 24, 2003, MidAmerican states:

MidAmerican's calculation of the required participant contribution assumes that the net investment, depreciation expense and O & M costs of the "Renewable Advantage" facility will be included in base rates. **As long as the revenue streams from the production tax credit and the wholesale sales margins are also recognized in base rates, non-participating customers should not be negatively impacted by this treatment either during the rate freeze or thereafter.** (MidAmerican Response to OCA Objection, pp. 5-6, emphasis added.)

The central focus of MidAmerican's proposal seems to be its cash flow analysis model, which equates MidAmerican's investment portion with the net present value of the wind generator's estimated net revenue and tax benefits. The analysis shows MidAmerican's investment portion being funded solely by these net benefits, requiring no contribution from customer rates. MidAmerican notes that these net benefits are not guaranteed. Therefore, MidAmerican seeks to minimize this risk by recovering its investment over a shorter 10-year period, rather than the wind generator's estimated 20-year economic life. To compensate for its remaining risk, MidAmerican sets a threshold 12.2 percent internal equity rate of return. If these risk-mitigating analysis assumptions are conceded to MidAmerican, then it is symmetrically reasonable for MidAmerican to also guarantee that customer rates will never be affected by its investment, as shown in its analysis.

The Board will therefore accept MidAmerican's proposed ratemaking treatment for its share of the Renewable Advantage wind generator, conditioned on MidAmerican's guarantee that customer rates will never be affected by the wind

generator. This means that MidAmerican would include both the costs and benefits of the wind generator facility in base rates as proposed (i.e., based on a 10-year depreciation life and 12.2 percent return on equity), with annual offsetting ratemaking adjustments, as necessary, to ensure that revenue sharing is unaffected during current and future settlement periods, and that future customer rates (including base rates and any future EAC rates) are unaffected. For example, if annual facility costs exceed facility revenues, MidAmerican would make a ratemaking reduction adjustment to facility costs, and absorb the excess facility costs below the line. In a similar manner, if annual facility revenues exceed facility costs, MidAmerican would make a ratemaking reduction adjustment to facility revenues and absorb the excess revenues below the line.

To maintain a clear distinction between the investment portions funded by program participants and MidAmerican, these excess facility revenues and costs would be absorbed solely by MidAmerican during the first ten years of the wind generator's operational life. After the first ten years, the excess facility revenues and costs would be absorbed by both MidAmerican and the Renewable Advantage purchase program, based on their proportional percentage contributions to the facility's investment cost. Thus, the wind generator would never affect customer rates, either directly or indirectly, and the generator's investors would absorb associated excess costs and revenues based on a clear distinction between their respective investment portions. MidAmerican will be required to summarize the



calculation of these annual adjustments, with supporting documentation, as an additional reporting requirement under 199 IAC 15.17(4).

It should be noted that Consumer Advocate's proposed 20-year depreciation and 11.15 percent equity return would (as modeling assumptions) reduce the required participant contribution. SEED's proposal for a zero percent equity return would reduce it even further. However, it should also be noted that nothing in the Board's AEP purchase program rules requires MidAmerican to offer this particular type of program under terms that MidAmerican finds unfavorable. MidAmerican could instead offer a contract and purchase program similar to IPL's. Under such a program, MidAmerican's target participant contribution level of \$331,000 would fund one-time purchases of renewable energy.

However, under MidAmerican's Renewable Advantage proposal, the same \$331,000 would leverage the purchase of an additional 1.5 MW wind generator that produces an estimated 4,400 MWH annually, at no additional cost to MidAmerican customers. Viewed in this context, MidAmerican's proposed program concept and 20 percent participant contribution level are reasonable, and the Board will approve it, subject to MidAmerican's agreement that customer rates will never be affected by the Renewable Advantage wind generator, through annual ratemaking adjustments as described above. In all other respects, MidAmerican's proposed program plan complies with the requirements of 199 IAC 15.17.

If MidAmerican does not agree to these additional understandings, then it will be directed to propose an alternative approach “to construct alternate energy facilities, or to purchase alternate energy resources by contract,” in accordance with its proposed program tariff. If MidAmerican modifies its program to construct a different type of facility or make contract purchases, it may have to notify customers of the change under rule 15.17(2). MidAmerican’s original notice specifically identifies its proposed 1.5 MW wind generator.

The proposed tariffs will also be approved. The tariffs are broadly worded to allow the use of participant contributions to construct or purchase alternate energy resources by contract. Therefore, the tariffs are broad enough to encompass the Renewable Advantage program or a contract and purchase program like IPL’s Second Nature program. Approving the tariff will allow MidAmerican to begin receiving customer contributions on schedule. If the program is subsequently modified, no changes to the tariff will likely be necessary.

**IT IS THEREFORE ORDERED:**

1. Tariff filing TF-03-537 is approved, subject to complaint or investigation.
2. The alternate energy purchase program filed by MidAmerican Energy Company on August 22, 2003, is approved, subject to the condition discussed in this order that MidAmerican customer rates will never be affected by the proposed wind generator. If MidAmerican does not agree to this condition as fully discussed in the body of this order, MidAmerican shall file a modified program in accordance with its

program tariff within 20 days from the date of this order, and renote customers if required pursuant to 199 IAC 15.17(2).

3. MidAmerican shall file information about its annual ratemaking adjustments as described in the body of this order, in addition to other reporting requirements in 199 IAC 15.17(4).

**UTILITIES BOARD**

/s/ Diane Munns

/s/ Mark O. Lambert

ATTEST:

/s/ Judi K. Cooper  
Executive Secretary

/s/ Elliott Smith

Dated at Des Moines, Iowa, this 24th day of December, 2003.